In the Claims

Claims 1-62 (Cancelled)

Claim 63 (Currently amended): An isolated pluri-differentiated mesenchymal progenitor cell, wherein said cell simultaneously expresses, at the protein level, a plurality of genes that are markers for multiple cell lineages, wherein said multiple cell lineages comprise at least four different mesenchymal cell lineages, wherein each of said markers is specific for a single cell lineage, and wherein said cell is not a cell of a cell line.

Claim 64 (Previously presented): The isolated cell of claim 63, wherein said at least four different mesenchymal cell lineages comprise adipocyte, osteoblast, fibroblast, and muscle cell.

Claim 65 (Previously presented): The isolated cell of claim 63, wherein said markers specific for a single cell lineage are selected from the group consisting of Nile Red, Oil Red O, adipsin, alkaline phosphatase, cadherin-11, chondroitin sulfate, collagen type I, decorin, fibronectin, prolyl-4-hydroxylase, actin, caldesmon, and transgelin.

Claim 66 (Previously presented): The isolated cell of claim 63, wherein said cell simultaneously expresses said plurality of genes in the presence of hydrocortisone and horse serum.

Claim 67 (Previously presented): The isolated cell of claim 63, wherein said cell is not a neoplastic cell.

Claim 68 (Previously presented): The isolated cell of claim 63, wherein said cell is chromosomally normal, as determined by Geimsa-trypsin-Wrights (GTW) banding.

Claim 69 (Previously presented): The isolated cell of claim 63, wherein said cell is a human cell.

Claim 70 (Previously presented): The isolated cell of claim 63, wherein said cell is obtained directly from a primary cell culture.

Claim 71 (Previously presented): The isolated cell of claim 70, wherein said primary cell culture is a Dexter culture.

Claim 72 (Previously presented): The isolated cell of claim 63, wherein said cell is obtained by providing a cell culture preparation by the Dexter method, treating the cells of the cell culture preparation to obtain a cell suspension, removing macrophages from the cell suspension, fractionating the remaining cells, and collecting the fraction of cells containing said isolated cell.

Claim 73 (Currently amended): A pharmaceutical composition comprising isolated pluri-differentiated mesenchymal progenitor cells and a pharmaceutically acceptable carrier, wherein said cells individually share the characteristic of simultaneously expressing, at the protein level, a plurality of genes that are markers for multiple cell lineages, wherein said multiple cell lineages comprise at least four different mesenchymal cell lineages, wherein each of said markers is specific for a single cell lineage, and wherein said cells are not cells of a cell line.

Claim 74 (Previously presented): The pharmaceutical composition of claim 73, wherein said at least four different mesenchymal cell lineages comprise adipocyte, osteoblast, fibroblast, and muscle cell.

Claim 75 (Previously presented): The pharmaceutical composition of claim 73, wherein said markers specific for a single cell lineage are selected from the group consisting of Nile Red, Oil Red O, adipsin, alkaline phosphatase, cadherin-11, chondroitin sulfate, collagen type I, decorin, fibronectin, prolyl-4-hydroxylase, actin, caldesmon, and transgelin.

Claim 76 (Previously presented): The pharmaceutical composition of claim 73, wherein said pluri-differentiated mesenchymal progenitor cells simultaneously express said plurality of genes in the presence of hydrocortisone and horse serum.

Claim 77 (Previously presented): The pharmaceutical composition of claim 73, wherein said pluri-differentiated mesenchymal progenitor cells are not neoplastic cells.

Claim 78 (Previously presented): The pharmaceutical composition of claim 73, wherein said pluri-differentiated mesenchymal progenitor cells are chromosomally normal, as determined by Geimsa-trypsin-Wrights (GTW) banding.

Claim 79 (Previously presented): The pharmaceutical composition of claim 73, wherein said pluri-differentiated mesenchymal progenitor cells are human cells.

Claim 80 (Previously presented): The pharmaceutical composition of claim 73, wherein said pluri-differentiated mesenchymal progenitor cells are obtained directly from a primary cell culture.

Claim 81(Previously presented): The pharmaceutical composition of claim 80, wherein said primary cell culture is a Dexter culture.

Claim 82 (Previously presented): The pharmaceutical composition of claim 73, wherein said pluri-differentiated mesenchymal progenitor cells are obtained by providing a cell culture prepared by the Dexter method, treating the cells of the cell culture to obtain a cell suspension, removing macrophages from the cell suspension, fractionating the remaining cells, and collecting the fraction containing said pluri-differentiated mesenchymal progenitor cells.

Claim 83 (Previously presented): The pharmaceutical composition of claim 73, wherein said pluri-differentiated mesenchymal progenitor cells are present in an amount effective for treating a disease state in a mammal in need thereof.

Claim 84 (Previously presented): The pharmaceutical composition of claim 73, wherein said pluri-differentiated mesenchymal progenitor cells are present in an amount effective to enhance hematopoietic stem cell engraftment or hematopoietic progenitor cell engraftment in a mammal in need thereof.

Claim 85 (Previously presented): The pharmaceutical composition of claim 73, wherein said pluri-differentiated mesenchymal progenitor cells are present in an amount effective to treat graft-versus-host disease (GvHD) in a mammal about to undergo bone marrow or organ transplantation or suffering from GvHD caused by bone marrow or organ transplantation.

Claim 86 (Previously presented): The pharmaceutical composition of claim 73, wherein said pharmaceutically acceptable carrier is sterile.

Claim 87 (Currently amended): A plurality of isolated pluri-differentiated mesenchymal progenitor cells, wherein said plurality of cells are cells that individually simultaneously express, at the protein level, a plurality of genes that are markers for multiple cell lineages, wherein said multiple cell lineages comprise at least four different mesenchymal cell lineages, wherein each of said markers is specific for a single cell lineage, and wherein said plurality of cells are not cells of a cell line.

Claim 88 (Previously presented): The plurality of isolated pluri-differentiated mesenchymal progenitor cells of claim 87, wherein said at least four different mesenchymal cell lineages comprise adipocyte, osteoblast, fibroblast, and muscle cell.

Claim 89 (Currently amended) A plurality of pluri-differentiated mesenchymal progenitor cells, wherein said plurality of cells are cells that individually simultaneously express, at the protein level, a plurality of genes that are markers for multiple cell lineages, wherein said multiple cell lineages comprise at least four different mesenchymal cell lineages, wherein each of said markers is specific for a single cell lineage, wherein said plurality of cells are not cells of a cell line, and wherein said pluri-differentiated mesenchymal progenitor cells have been isolated from hematopoietic cells and macrophages to a purity of at least 95%.

Claim 90 (Previously presented): The isolated cell of claim 63, where said cell is not immortalized.

Claim 91 (Previously presented): The pharmaceutical composition of claim 73, wherein said pluri-differentiated mesenchymal progenitor cells are not immortalized.

Claim 92 (Previously presented): The plurality of isolated pluri-differentiated mesenchymal progenitor cells of claim 87, wherein said plurality of cells are not immortalized.

Claim 93 (Previously presented): The plurality of isolated pluri-differentiated mesenchymal progenitor cells of claim 87, wherein said plurality of cells are not neoplastic cells.

Claim 94 (Previously presented): The plurality of isolated pluri-differentiated mesenchymal progenitor cells of claim 87, wherein said plurality of cells are chromosomally normal, as determined by Geimsa-trypsin-Wrights (GTW) banding.

Claim 95 (Previously presented): The plurality of isolated pluri-differentiated mesenchymal progenitor cells of claim 87, wherein said plurality of cells are human cells.

Claim 96 (Previously presented): The plurality of isolated pluri-differentiated mesenchymal progenitor cells of claim 87, wherein said plurality of cells are obtained directly from a primary cell culture.

Claim 97 (Previously presented): The plurality of isolated pluri-differentiated mesenchymal progenitor cells of claim 96, wherein said primary cell culture is a Dexter culture.

Claim 98 (Previously presented): The plurality of isolated pluri-differentiated mesenchymal progenitor cells of claim 87, wherein said plurality of cells are obtained by providing a cell culture preparation by the Dexter method, treating the cells of the cell culture preparation to obtain a cell suspension, removing macrophages from the cell suspension, fractionating the remaining cells, and collecting the fraction of cells containing said plurality of cells.

Claim 99 (Previously presented): The plurality of isolated pluri-differentiated mesenchymal progenitor cells of claim 87, wherein said plurality of cells individually simultaneously express said plurality of genes in the presence of hydrocortisone and horse serum.

Claim 100 (Previously presented): The plurality of isolated pluri-differentiated mesenchymal progenitor cells of claim 87, wherein said markers specific for a single cell lineage are selected from the group consisting of Nile Red, Oil Red O, adipsin, alkaline phosphatase, cadherin-11, chondroitin sulfate, collagen type I, decorin, fibronectin, prolyl-4-hydroxylase, actin, caldesmon, and transgelin.